

## CLAIMS

What is claimed is:

- 1     1.     A floor cleaning unit comprising:
  - 2             at least one PVC/NBR component selected from the group consisting of
  - 3             seals, mounts, tubing, and contact members, said PVC/NBR component including
  - 4             a polyvinyl chloride base resin and, based upon 100 parts by weight of said
  - 5             polyvinyl chloride base resin:
    - 6                 (a)     from about 10 to about 50 parts nitrile rubber, as an impact
    - 7                 modifier;
    - 8                 (b)     from about 30 to about 100 parts plasticizer; and
    - 9                 (c)     from about 1 to about 4 parts polyvinyl chloride stabilizer.
- 1     2.     A floor cleaning unit comprising:
  - 2             a contact member including a polyvinyl chloride base resin; and
  - 3             based upon 100 parts by weight of said polyvinyl chloride base resin:
    - 4                 (a)     from about 20 to about 40 phr nitrile rubber,
    - 5                 (b)     from about 60 to about 100 phr plasticizer,
    - 6                 (c)     from about 1 to about 5 phr polyvinyl chloride stabilizer,
    - 7                 (d)     from about 10 to about 15 phr epoxide plasticizer,
    - 8                 (e)     from about 0.05 to about 0.4 phr internal lubricant, and
    - 9                 (f)     from about 0.7 to about 1.5 phr external lubricant.
- 1     3.     A floor cleaning unit of claim 2, wherein, based upon 100 parts by weight of said  
2             polyvinyl chloride base resin, said contact member includes:
  - 3                 (a)     from about 25 to about 35 phr nitrile rubber,
  - 4                 (b)     from about 70 to about 90 phr plasticizer,
  - 5                 (c)     from about 2 to about 4 phr polyvinyl chloride stabilizer,
  - 6                 (d)     from about 12 to about 14 phr epoxide plasticizer,
  - 7                 (e)     from about 0.1 to about 0.3 phr internal lubricant, and
  - 8                 (f)     from about 0.8 to about 1.2 phr external lubricant.

- 1     4.     The floor cleaning of claim 3, wherein, based upon 100 parts by weight of said  
2           polyvinyl chloride base resin, said contact member includes:
- 3           (a)     30 phr nitrile rubber,  
4           (b)     about 80 phr plasticizer,  
5           (c)     about 3 phr polyvinyl chloride stabilizer,  
6           (d)     about 13 phr epoxide plasticizer,  
7           (e)     about 0.2 phr internal lubricant, and  
8           (f)     about 1,05 phr external lubricant.
- 1     5.     A floor cleaning unit comprising:  
2           a sealing member including a polyvinyl chloride base resin; and  
3           based upon 100 parts by weight of said polyvinyl chloride base resin:
- 4           (a)     from about 20 to about 40 phr of nitrile rubber,  
5           (b)     from about 60 to about 100 phr of plasticizer,  
6           (c)     from about 1 to about 5 phr of polyvinyl chloride stabilizer, and  
7           (d)     from about 10 to about 15 phr of epoxide plasticizer.
- 1     6.     The floor cleaning unit of claim 5, wherein, based upon 100 parts by weight of said  
2           polyvinyl chloride base resin, said sealing member includes:
- 3           (a)     from about 25 to about 35 phr of nitrile rubber,  
4           (b)     from about 70 to about 90 phr of plasticizer,  
5           (c)     from about 2 to about 4 phr of polyvinyl chloride stabilizer, and  
6           (d)     from about 12 to about 14 phr of epoxide plasticizer.
- 1     7.     The floor cleaning unit of claim 6, wherein, based upon 100 parts by weight of said  
2           polyvinyl chloride base resin, said sealing member includes:
- 3           (a)     about 30 phr of nitrile rubber,  
4           (b)     about 80 phr of plasticizer,  
5           (c)     about 3 phr of polyvinyl chloride stabilizer, and  
6           (d)     about 13 phr of epoxide plasticizer.

- 1     8.     A floor cleaning unit comprising:  
2             a foamed sealing member including a polyvinyl chloride base resin, and,  
3             based upon 100 parts by weight of said polyvinyl chloride base resin:  
4             (a)     from about 20 to about 40 phr of nitrile rubber,  
5             (b)     from about 75 to about 125 phr of plasticizer,  
6             (c)     from about 1 to about 5 phr of polyvinyl chloride stabilizer,  
7             (d)     from about 10 to about 15 phr of epoxide plasticizer,  
8             (e)     from about 0.5 to about 1.5 phr of blowing agent.
- 1     9.     The floor cleaning unit of claim 8, wherein, based upon 100 parts by weight of said  
2             polyvinyl chloride base resin, said foamed sealing member includes:  
3             (a)     from about 25 to about 35 phr of nitrile rubber,  
4             (b)     from about 85 to about 95 phr of plasticizer,  
5             (c)     from about 2 to about 4 phr of polyvinyl chloride stabilizer,  
6             (d)     from about 12 to about 14 phr of epoxide plasticizer,  
7             (e)     from about 0.75 to about 1.25 phr of blowing agent.
- 1     10.    The floor cleaning unit of claim 8, wherein, based upon 100 parts by weight of said  
2             polyvinyl chloride base resin, said foamed sealing member includes:  
3             (a)     about 30 phr of nitrile rubber,  
4             (b)     about 100 phr of plasticizer,  
5             (c)     about 3 phr of polyvinyl chloride stabilizer,  
6             (d)     about 13 phr of epoxide plasticizer,  
7             (e)     about 1 phr of blowing agent.
- 1     11.    A floor cleaning unit comprising:  
2             tubing including a polyvinyl chloride base resin; and  
3             based upon 100 parts by weight of said polyvinyl chloride base resin:  
4             (a)     from about 20 to about 40 phr of NBR;  
5             (b)     from about 50 to about 80 phr of plasticizer;  
6             (c)     from about 1 to about 5 phr of PVC stabilizer;  
7             (d)     from about 3 to about 8 phr of epoxide plasticizer;

- 8 (e) from about 5 to about 15 phr filler;  
9 (f) from about 0.05 to about 0.4 phr internal lubricant; and  
10 (g) from about 0.5 to about 1.2 phr external lubricant.

- 1 12. A process for producing a soft durometer polyvinyl chloride compound comprising  
2 the sequential steps of:  
3 adding PVC resin to a mixer and heating, under agitation, to a temperature  
4 of from about 140°F to about 170°F;  
5 adding plasticizer and stabilizer to the PVC resin and raising the  
6 temperature to from about 185°F to about 195°F;  
7 adding at least one ingredient selected from fillers, blowing agents,  
8 pigments, internal lubricants and external lubricants and raising the temperature  
9 to from about 220°F to about 240°F  
10 transferring the resultant mixture to a cooling mixer and lowering the  
11 temperature to the range of from about 120°F to about 70°F;  
12 adding nitrile rubber to the cooled mixture; and  
13 feeding the resultant nitrile rubber mixture to an extruder to shear and fuse  
14 the mixture at a temperature of from about 280°F to about 350°F.

- 1 13. The process of claim 12, further comprising the step of:  
2 pelletizing the nitrile rubber mixture at the extruder.

- 1 14. The process of claim 13, further comprising the step of:  
2 forming the pellets into an element of a floor cleaning unit, the element  
3 being selected from the group consisting of sealing members, mounts, tubing and  
4 contact members.